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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E. FEB 5 2 22 PM '92
ATLANTA, GEORGIA 30365

FEB - 4 1992

20368

4WD-RCRA/FF

Mr. James C. Brown
Manager, Environmental Technology
Olin Chemical Corporation
P.O. Box 248
Lower River Road
Charleston, TN 37310

Re: Final RFA Report
Olin Chemicals Corporation
McIntosh, Alabama
EPA I.D. Number ALD 008 188 708

Dear Mr. Brown:

Enclosed is the final version of the RCRA Facility Assessment Report for the Olin Chemical Plant in McIntosh, Alabama. Also included is Olin's 12/1/91 comments on the RFA (Attachment 1) and EPA's response to these comments (Attachment 2).

If you have any questions or concerns regarding the final RFA Report, please contact Joanne Benante of the RCRA Permitting Section at (404) 347-3433.

Sincerely yours,

G. Alan Farmer

G. Alan Farmer
Chief, RCRA Branch
Waste Management Division

Enclosure

cc: Steve Cobb, ADEM
Cheryl Smith, CERCLA

ATTACHMENT A

General Comments

The major objective of this RFA was to identify the solid waste management units (SWMUs) at the McIntosh facility. Any requirement for further action on these SWMUs will be through the RI/FS process. A.T. Kearney, through contract, was asked to make recommendations to EPA on further actions for SWMUs identified through the RFA process. Their recommendations are based upon their preliminary review of EPA files of the Olin facility and the visual site inspection. These recommendations may aid the EPA project manager in determining the requirements for each SWMU but are not by themselves requirements. Therefore, AT Kearney's recommendations to EPA will not be altered in the RFA Report. If Olin has any data, as stated, that would be relevant to EPA's decision for further action, it certainly will be considered.

For a better understanding, the definition of a Solid Waste Management Unit is as follows:

> Solid Waste Management Unit means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any areas at a facility at which solid wastes have been routinely and systematically released.

RFA Page	EPA's Comments
Cover Letter	The cover letter is not subject to review or change only the RFA Report.
1	a) Changes made. b) Changes made.
2	a) Changes made.
4	a)- b) See general comment above. c) Clarification made. d) Changes made. e) See general comment above. f) EPA believes the possibility exists therefore no changes were made.
5	a) Changes made. b) See general comment above. c) The title of the column is waste managed, not hazardous waste managed or hazardous constituents managed. Therefore, it is appropriate to list chloride since it is a result of waste managed in SWMU 15.
6	a) Changes made. b) Changes made.
7	a) See general comment above.
8	a) Changes made. b) See general comment above.
9	a) Changes made. b) The brine is not a hazardous waste because it is not a solid waste, but it does "contain" a hazardous waste that is D009. Therefore under this context it is appropriate to include it under the title "waste managed".
10	a) See 4f. b) Changes made.
11	a) See general comment above. b) See general comment above. c) Changes made.
13	a) Changes made.

RFA Page	EPA's Comments
15	a) Changes made.
18	a) Changes made. b) Clarification made.
19	a) Changes made. b) Changes made.
21	a) Changes made.
25	a) Changes made.
27	a) Changes made.
29	a) Changes made.
30	a) Changes made.
32	a) Changes made.
38	a) The RFA report is not a forum for legal negotiations, past or present. It is an account of SWMUs which includes an account of violations. Therefore the RFA will not be changed.
42	a) Changes made. b) Changes made.
43	a) Changes made.
62	a) Changes made. b) Clarification made.
68	a) See general comment above.
69	a) Clarification made.
70	a) Changes made. b) Changes made.
74	a) See general comment above. b) EPA is willing to discuss this item. Again, no requirements are made of Olin in this document.
76	a) See general comment above.
81	a) Changes made.
86	a) Changes made.

RFA Page	EPA's Comments
	b) Changes made.
87	a) See 74b.
88	a) See general comment above.
94	a) Changes made.
95	a) Changes made. b) Changes made.
102	a) Changes made.
104	a) See general comment above.
124	a) See general comment above.
128	a) Changes made.
137	a) See general comment above.
139	a) EPA is willing to discuss this item.
142	a) See definition of SWMU. From this definition it is clear to EPA that the Basin is indeed a SWMU.
143	a) See general comment above. b) See general comment above. c) Changes made.
147	a) Until Olin proves by analytical methods that the contaminated soil does not exhibit a characteristic, EPA assumes that it does. In any event contaminated soils require further action.
156	a) Changes made. b) Changes made.
158	a) Changes made.
159	a) See general comment above. EPA is willing to discuss this item.
162	a) See general comment above.
165	a) Changes made.
166	a) See general comment above.

RFA Page	EPA's Comments
172	a) Changes made.
180	a) See general comment above.
183	a) Olin's comment is not clear; therefore no change was made.

Attachment 1

Olin CHEMICALS
P.O. BOX 248, LOWER RIVER ROAD, CHARLESTON, TN 37310
PHONE: (615) 336-4000

DEC 6 3 25 PM '91

December 1, 1991

VIA FEDERAL EXPRESS

James Kutzman, P.E.
Associate Director
Office of RCRA and Federal Facilities
Waste Management Division
345 Courtland St., N.E.
Atlanta, GA 30365

Attn: Joanne Benante

Re: Comments on Draft Final RFA Report
Olin Corporation
McIntosh, AL
EPA I. D. Number ALD 008 188 708

Dear Mr. Kutzman and Ms. Benante:

The attached comments are in response to your letter of November 19, 1991, soliciting Olin Corporation's comments on EPA's RCRA Facility Assessment Report for our McIntosh, Alabama, facility. The draft final RFA report was provided to Olin under cover of Mr. James H. Scarbrough's letter of October 30, 1991. First, Olin appreciates the opportunity to provide comments on the draft RFA. Second, we would like to commend EPA's consultant, A. T. Kearney, on an excellent job of compiling, organizing, and understanding an enormous amount of information. A. T. Kearney's reporting of information regarding solid waste management at the McIntosh facility over the past 40 years is by and large accurate. Given the volume of information, there are areas where Olin believes we can add valuable clarification. There are also a few areas where Olin's familiarity regarding our past practices allows us to view the situation in another, but we believe equally valid, light than A. T. Kearney. We have discussed both areas below. I want to emphasize that, despite the volume of these comments, we believe that A. T. Kearney's accuracy in reporting past situations was exemplary.

I spoke with Joanne Benante of your staff on November 21, 1991, and she asked that Olin include any suggestions regarding the best action plan for addressing those units where A. T. Kearney has recommended confirmatory sampling. After EPA has time to review these comments, we would welcome the opportunity to discuss those few areas where Olin sees the issues different from EPA/A. T. Kearney. EPA can then prepare a final list of solid waste management units and/or areas of concern that may need confirmatory sampling. Olin would then propose to use the current Remedial

Investigation/Feasibility Study Work Plan, being supervised by Region IV, to submit a plan for the confirmatory sampling.

Our comments on the draft final RFA report are organized in the following manner. The issues that we believe are most significant to Olin are listed below in this cover letter. In Attachment 1, all comments are listed in the order of occurrence in the draft RFA report. The comments in Attachment 1 reference the appropriate page of the RFA report. When a paragraph is referred to by number, we include partial paragraphs at the top of a given page in the count.

Major Issues

While our detailed comments in Attachment 1 include all the issues Olin wishes to raise, our few general concerns are outlined below:

In several instances, A. T. Kearney has suggested sampling of SWMUs where downgradient wells indicate groundwater contamination by a specific compound. In many cases these wells are also downgradient from primary sources of these compounds. We have raised these instances as they arise in the detailed comments, however, as a general matter, it will be difficult to distinguish which source is responsible for the contamination except through records of wastes managed in a source. Olin proposes that the Source Evaluation Technical Memorandum submitted under the RI/FS be used to resolve these concerns.

Olin does not understand the purpose of the suggestion to sample the mercury cell brine cavities within the salt dome. Pure salt is virtually impermeable as evidenced by the pressures that these cavities hold on a continuous basis. Olin considers the brine within these cavities as an asset, not a waste.

We do not understand the emphasis given to reviewing the Pump and Treat System (RCRA Corrective Action System). This system is monitored under the post-closure permit and subject to close scrutiny by EPA and ADEM. While we are committed under the RI/FS to investigate the extent of groundwater contamination, we would have thought that the RCRA office which issued the post-closure permit would understand the purpose, effectiveness, schedule, and operation of the corrective action program.

There are many instances where the RFA report uses incorrect waste codes to describe hazardous wastes managed at Olin. Most of these relate to designating a stream as a U waste simply because it contains the constituent corresponding the commercial chemical product for that particular U code. Several relate to labeling a current or former process stream with the K code specific to wastes from the production process associated with the stream. The detailed comments list these in reference to each instance where Olin believes a waste code has been misapplied.

We believe that a more effective approach to many of the suggested samplings is to remove the minor staining noted in regard to several SWMUs. We have made each of these recommendations as they arise in the RFA report.

Please call me at 615-336-4308 or Toni Odom at 205-944-2231 Ext. 350 if you have any questions about this submission.

Sincerely,

OLIN CORPORATION

J. C. Brown
Manager, Environmental Technology

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Attachment

cc: W. A. Beal
D. E. Cooper (2)
W. J. Derocher
M. L. Fries
K. A. Lucas
W. G. McGlasson
J. L. McIntosh
T. B. Odom
R. A. Pettigrew

Comments on Draft Final RCRA Facility Assessment Report
Olin Corporation
McIntosh, Alabama
EPA I. D. ALD 008 188 708

RFA Page	Olin's Comment
Cover Letter	In the second paragraph of A. T. Kearney's transmittal cover letter to EPA, there is a reference to "mercury chlor-alkali process." For clarity, this should be changed to "mercury cell chlor-alkali process."
1	The third sentence of paragraph 3 should be edited to read: The salt mine uses solution mining techniques to generate brine from the McIntosh salt dome. After that sentence an additional sentence should be added to read: The brine is used in the production of chlorine and caustic soda at the manufacturing plant. The next sentence should be edited to read: Plant wastewater effluent was discharged to the Tombigbee River through the wetlands/Basin area from 1952 to 1974. (Note: Many references to activities starting in 1951 should be changed to 1952. While the mercury cell plant was constructed in 1951, activities such as wastewater generation did not begin until after the plant started up in August 1952. Therefore, any activity that depended on plant operation should start with 1952 throughout the RFA report.) The fourth sentence of paragraph five should be edited to read: The chloroform contamination is most likely associated with trichloroacetonitrile (TCAN) production in the CPC plant (AOC A), since chloroform is a degradation product of TCAN residues. The next sentence should be edited to read: Caustic soda released from the caustic evaporator trenches has also created a large area of contaminated soil in the caustic evaporator release site (SWMU 51).
2	The third sentence of paragraph three should be edited to read: However, the facility did undertake a CERCLA emergency removal of soils containing hexachlorobenzene in 1990 from an area discovered during the grading of the temporary ash pond (one of the inactive ash ponds - SWMU 6).
4	Note: References to RFA report pages 4-11 relate to Table I-1 of the RFA report. Locations within the table are referenced by SWMU/AOC number (leftmost column of the table) and column heading, which are noted herein in all capital letters. For SWMU 1, the EVIDENCE OF RELEASES column of Table I-1 contains a "yes" entry. It is unclear from the text describing this SWMU what constitutes this evidence. For SWMU 2, in the WASTES MANAGED column, the phrase "weak post-process brine" has a (K071) after it. K071 is a listed hazardous waste: brine muds from the treatment of brine. The brine itself was a process fluid and is not classified as K071. For SWMU 3, the EVIDENCE OF RELEASES column contains a "No" entry. The low pH of the groundwater in the vicinity of this unit are attributed to it. For SWMU 4, the WASTE MANAGED column notes that the lime slurry contained mercury vapors. The lime slurry was used to absorb chlorine that was not liquefied in low temperature refrigeration units. The chlorine was reduced in temperature to

RFA Page	Olin's Comment
	approximately -40°C. Prior to refrigeration, the chlorine was countercurrently contacted with sulfuric acid in a four stage drying system to remove all water vapor, which water caused the chlorine to be corrosive. It is virtually impossible that any mercury could have remained in the chlorine stream absorbed by the lime slurry. For SWMU 5, EVIDENCE OF RELEASE is noted from the stormwater pond. As noted above For SWMU 1, it is unclear what constitutes the evidence of this release.
5	For SWMU 11 in the WASTES MANAGED column, several constituents of waste and wastewaters from the Crop Protection Plant are noted followed by a U designation. U designations are appropriate for commercial chemical products, chemical intermediates, or the spill residues thereof. None of these materials were placed into the CPC Landfill. Therefore, while these compounds may be constituents of waste in the landfill, they should not carry the U designation. For SWMU 12 in the WASTES MANAGED column, and as noted in the text, Olin disputes the statement that asbestos, hexachlorobenzene, and sludges containing mercury were disposed of in either of the two sanitary landfills. The only evidence noted for such disposal is a non-Olin report that speculates without citing any primary evidence that these wastes were actually managed in these units. Olin has evidence to the contrary in that employees who managed these facilities maintain that such wastes were not disposed of in these units. In any event, the disposal of asbestos in approved sanitary-type landfills is permitted. Additionally, Olin never produced hexachlorobenzene as a commercial chemical product nor a chemical intermediate and therefore the U127 designation should be deleted. For SWMU 15, hazardous pH levels are noted under the column labeled WASTE MANAGED. The "wastes" in this instance are contained in groundwater. For a short period of time the groundwater pumped from corrective action well #3 exhibited a pH less than 2. However, the groundwater was managed in enclosed piping where the pH was adjusted in-line to between 5 and 9. Chlorides are also listed as a constituent of waste managed. This is true, however, chlorides are not a hazardous constituent.
6	For SWMU 23, the final YEAR IN OPERATION should be 1971, instead of 1977. The WASTES MANAGED in SWMU 24 is more accurately described as soils containing still bottoms from the production of chlorobenzenes (K085). with hexachlorobenzene as the major constituent.
7	For SWMU 29, confirmatory sampling is suggested based on stained areas from virgin fuel oil unloading. The stains are all within the concrete unloading area. Based on the fact that virgin fuel oil in small quantities does not contain hazardous constituents in significant enough amounts to constitute a release to groundwater, Olin disagrees with the need for sampling. As Table I-1 notes, there is no EVIDENCE OF RELEASE other than the staining on the concrete from fuel oil unloading.
8	For SWMU 37, the YEARS IN OPERATION should be 1977 to Present. The coal fire boilers were not built until Olin constructed the diaphragm cell chlorine plant in 1977.

RFA Page	Olin's Comment
	Olin disagrees with the need for confirmatory sampling in the area. Olin can provide analyses of the coal pile runoff, required in the past by the NPDES permit, to illustrate that the levels of any constituents are present at very low levels and do not constitute a source of contamination.
9	For SWMU 38, the YEARS IN OPERATION should be changed to 1952 to 1974. As noted above, it is inappropriate to use a U designation for constituents that may have been present in the wastewater discharged through the Basin to the Tombigbee River. U listed waste under RCRA regulations describe commercial chemical products, chemical intermediates, or the spill clean-up residues from spills of these compounds, not the presence of these constituents in wastewater. For SWMU 44, the WASTES MANAGED is described as weak brine solution contaminated with mercury (D009). The weak brine solution was not and is not a waste. This was a raw material for the chlorine process and the brine today is considered an asset. Therefore it is inaccurate to describe the brine as D009. Under FURTHER ASSESSMENT, confirmatory sampling is suggested. We disagree with the need for confirmatory sampling as explained below in our comment relative to this SWMU and referencing page 159 of the RFA report.
10	For SWMU 47, see the comment above regarding SWMU 3 and the comments regarding possible mercury vapors within the waste managed in the lime slurry ponds. For SWMU 51, the caustic evaporator was constructed as part of the diaphragm cell chlorine plant in 1977. Therefore the years of operation should be changed to 1977 to Present.
11	For Area of Concern B, the table contains a "Yes" entry under EVIDENCE OF RELEASE. The text does not support this conclusion, but only notes that Olin conducted a program under NESHAPS to replace flooring within the mercury cell plant. For Area of Concern C, the YEARS IN OPERATION really have no meaning because there is no evidence that the runoff to Bilbo Creek was or is contaminated. Bilbo Creek is approximately 0.8 miles from the nearest point of developed Olin property and the likelihood of runoff being contaminated, as well as the likelihood of any contamination reaching Bilbo Creek, is virtually zero. For these reasons Olin believes that sampling in Bilbo Creek will prove to be unnecessary based on the contingency stated under the COMMENTS on page 180 of the RFA report. For Area of Concern D, the years of operation should be 1952 to 1968. As noted in the text of the RFA report, Olin changed it's operations to leave well sands within the brine cavities rather than separate them at the surface in 1968.
13	In the fifth paragraph, the direction from the plant of the salt mining area should be changed from east to west. Likewise, the wetlands direction should be changed from west to east.
15	In the fourth paragraph, the salt dome resources were first explored in 1945. The salt dome cap rock, as shown on page 20 of the RFA report, is 300 to 430 fee.

RFA Page	Olin's Comment
	below ground surface, not 500 feet as stated here. A total of ten wells have been drilled into the dome.
18	The fourth sentence of the of the third full paragraph should be changed to read: The chloroform contamination is most likely associated with TCAN production in the CPC plant (AOC A), since chloroform is a degradation product of TCAN residues. The next sentence should be revised to read: Caustic soda released from the drain trenches of the evaporator structure has also created a large area of contaminated soil in the caustic evaporator release site (SWMU 51). In paragraph 5 "PCB-contaminated oils" should be deleted from the list in this paragraph because PCB-contaminated oils are not hazardous wastes.
19	In paragraph 2 under Section C., Mathieson Corporation should be referred to as a predecessor of Olin Mathieson. Olin Industries and Mathieson Corporation merged in 1954 to form Olin Mathieson Chemical Corporation. In the fourth paragraph under section C., the first sentence should be edited to read: The mercury in the mercury cathode cells formed an amalgam with sodium which flowed to a decomposer tower with graphite packing, where it was contacted countercurrently with deionized water. The next sentence should be revised to read: The amalgam was decomposed to recover mercury and produce sodium hydroxide.
21	In the first sentence of the paragraph that begins near the bottom of page 21 and continues to the top of page 23 (page 22 is a table), delete "denatured with benzene."
25	In the partial paragraph at the top of the page, note that the plans to send salt to Charleston, TN, were never implemented.
27	In the first full paragraph, the second sentence should be edited to read: When the weak brine containing low concentrations of mercury circulated in the salt dome, it replenished it's salt concentration and was pumped to the strong brine pond (AOC F) to reenter the process.
29	In the first paragraph, the words "partial drying" should be replaced by "dewatering." Olin is required by NESHAP regulations to manage asbestos wet.
30	In the second paragraph, change "30,000 gallons per year" to either: 5,600 gallons per year, or 30,000 pounds per year.
32	In the last sentence of the third paragraph, the spent carbon is managed as a non-hazardous waste.
38	The violations listed at the bottom of page 38 and continuing to the top of page 39 have all been resolved with EPA and/or ADEM. For completeness, the RFA report should reference Olin's responses to the NOV's.
42	In the third sentence of the fourth paragraph, "channels were" should be changed to: channel was.

RFA Page	Olin's Comment
	In the second sentence of the last paragraph, add: ,except well #4, after "5." Corrective action well #4 has a separate outfall, DSN002, to the east of DSN001.
43	The second sentence of the first paragraph should be edited to read: DSN001a receives process wastewater and coal pile runoff. A sentence should be added after this to read: Treated groundwater from RCRA Corrective Action Wells No. 3 and 5 discharge to the wastewater ditch leading to DSN001.
62	The second sentence of the first full paragraph should be revised to note that Olin and Ciba-Giegy are monitoring to insure the presence of a groundwater divide. Neither Olin nor Ciba adjusts pumping rates based on the divide. The pumping rates for both facilities are based on establishing adequate capture zones for the contaminant plumes. The second sentence of the last paragraph on the page should be revised to indicate that the area north of Olin plant property is Ciba-Giegy, another chemical manufacturing facility, rather than residential.
68	The paragraph entitled HISTORY AND/OR EVIDENCE OF RELEASE should be revised. Olin does not believe nor is there any evidence to support that SWMU 1, Brine Filter Backwash Pond, is a primary source of groundwater contamination. The second paragraph under the section entitled COMMENTS should be revised to delete the last sentence.
69	The fourth sentence of the first paragraph under PHYSICAL DESCRIPTION AND CONDITION of SWMU 2, Weak Brine Pond, should be revised to delete the designation of K071 for weak brine. K071 is brine muds from the treatment of brine, not the brine itself. The same deletion should be made in the partial paragraph at the bottom of the page.
70	The monitor well referred to under HISTORY AND/OR EVIDENCE OF RELEASE(S) should be BR-8D. The second paragraph under the section entitled COMMENTS should be revised. EPA has requested an equivalency demonstration for those RCRA units clean closed under 40CFR265. SWMU 2, the Weak Brine Pond, was closed in place as a landfill and is the subject of the post closure permit. Therefore this paragraph should be revised to reflect this.
74	The first paragraph under the section entitled WASTE AND/OR HAZARDOUS CONSTITUENTS MANAGED should be revised to delete the reference to mercury vapors. As explained above in the response to SWMU 4 (referencing page 4 of the RFA report), the likelihood of any mercury managed in this SWMU is nil. Regarding the paragraph under the section entitled COMMENTS, Olin assumes that the suggestion to sample for chlorobenzene is based on the presence of chlorobenzene in wells downgradient from this unit. Olin firmly believes that wastes from the Crop Protection Chemical plant, which may have contained chlorobenzene, were never managed in any of the lime ponds. The presence of chlorobenzene in the groundwater downgradient of the lime ponds is because these same wells are downgradient from the CPC plant. As noted in the Source

RFA Page	Olin's Comment
	Evaluation Technical Memorandum, submitted to Mr. Ken Lucas of EPA on November 11, 1991, the trends in chlorobenzene concentration both upgradient and downgradient of the lime ponds indicate that the lime ponds are not contributing additional chlorobenzene to the groundwater. We would like to discuss this issue further in a meeting when all data from groundwater monitor wells around the lime ponds as well as other sources are readily available as a basis for the discussion. We believe that there is little or no evidence that the lime ponds constitute a source of any groundwater contaminants present at levels of concern.
76	Under the section entitled HISTORY AND/OR EVIDENCE OF RELEASES, Olin does not believe that the stormwater pond (SWMU 5) has been a source of groundwater contamination beneath the facility. We would ask that A. T. Kearney or EPA clarify the basis for this conclusion.
81	Under the section entitled PHYSICAL DESCRIPTION AND CONDITION, the first sentence of the first paragraph notes that the diaphragm cell brine pond (SWMU 8) was unlined. It is true that the diaphragm cell brine pond does not have a synthetic liner, however, the clay bottom and sides of this surface impoundment were compacted when the pond was constructed in 1977. This compaction would have reduced the permeability of the clay and Olin believes this constitutes a lined facility. "Unlined" implies to us that the facility was simply constructed within native soil without any effort to reduce the permeability.
86	In the section entitled PHYSICAL DESCRIPTION AND CONDITION, the first sentence of the second paragraph should be revised to read: In 1972, the area was converted into a landfill. The third sentence of this same paragraph should be revised to read: The landfill received most waste from the Olin plant including waste from the PCNB, Terrazole, and TCAN production areas, and other plant trash. An additional sentence should be added to this paragraph to read: The 1977 cap was significantly enhanced in 1984 to address erosion and small areas of leachate seepage to the plant wastewater ditch. See the comment above referencing page 5 of the RFA report concerning the WASTES AND/OR HAZARDOUS CONSTITUENTS MANAGED in SWMU 11 and their characterization in RFA Report as U waste.
87	The first paragraph raises the issues of wells downgradient from SWMU 11 and their concentrations of chlorides and mercury. Olin believes that the chlorides and mercury in these wells originated from the weak brine pond with perhaps lesser contributions from the filter backwash pond-stormwater pond area. Because the wells cited in this paragraph are downgradient from both the old plant landfill and the weak brine pond and other pond area, it is difficult to draw an accurate conclusion regarding the source of contaminants in the wells. While the old plant landfill was used for most plant waste, chloride- and mercury-containing waste may have been managed in relatively small quantities. Contaminants from SWMU 11 will be further addressed in the RI/FS, but it is Olin's position that the old plant landfill is predominantly a source of organics and has not contributed significant levels of mercury or chloride to the groundwater. The erosion referred to in the last sentence of the second paragraph were addressed by the cap improvements of 1984. Olin is unaware of EPA or ADEM inspections since the improvements were made that noted any concern with erosion.

RFA Page	Olin's Comment
88	The third and fourth paragraphs of this page mention a 1982 summary that suggests that asbestos, hexachlorobenzene, and sludges containing mercury may have been disposed of here. Olin believes that this suggestion is without foundation. We would ask that EPA/A. T. Kerney comment on evidence available to support this suggestion. Olin's belief is that this is an inspector's speculative assumption based on the fact that these materials were handled at the plant site during the period that the sanitary landfills operated. Olin practiced a segregation program to insure that no hazardous materials were disposed of in the sanitary landfills. We firmly believe that any sampling in this area is unwarranted, especially in light of the fact that Olin has committed to sample the groundwater monitoring wells around this SWMU.
94	Note that Corrective Action Well #3 discharges to DSN001, not to the pH treatment system.
95	Note that Corrective Action Well #5 discharges to DSN001, not to the pH treatment system. Also note that the spent carbon is a non-hazardous waste which Olin chooses to dispose of at a hazardous waste facility.
102	Under PHYSICAL DESCRIPTION AND CONDITION, the last sentence of the first paragraph should be edited to delete the references to Calgon units and plant effluent. The drainage was always recycled to the process.
104	The last sentence of the first paragraph notes that the secondary containment of SWMU 20, Used Oil Tank and Unloading Pad, held standing liquid at the time of the VSI. While this comment is put forth as a reason that the base could not be observed, Olin believes that the presence of standing liquid indicates that the base is liquid tight. In fact, Olin believes that this indicates that the secondary containment is serving it's intended purpose. It is clear from the nature of the stains observed during the VSI that the amount of leakage is small. Olin does not believe that there is any possibility that this constitutes a release of hazardous constituents from this SWMU. Olin does agree that good housekeeping would dictate that the unloading coupling be moved to inside the secondary containment, that the stained soil be cleaned up, and that any cleanup residuals be properly disposed of. We would prefer such clean-up to an option of sampling that would probably cost more than the cleanup.
124	The stains referred to under the section entitled HISTORY AND/OR EVIDENCE OF RELEASES from SWMU 29, Hydrazine Wastewater Unloading Area, are virgin fuel oil from fuel oil unloading, not hydrazine wastewater. The stains are surficial and the result of minor spillage of virgin oil on to the contained area. We recognize that this paragraph states that the VSI team observed stains on adjacent ground. These stains were small in area and are certainly better addressed by removing the soil containing a low level of virgin fuel oil than by an expensive sampling program.
128	As noted above, references to "drying" asbestos should be changed to: dewatering. The asbestos is handled wet. Also note that although the pad is not curbed, there are trenches around the area for water collection and management.

RFA Page	Olin's Comment
137	The section entitled HISTORY AND/OR EVIDENCE OF RELEASES notes a "milky discharge" from the old plant landfill. Olin believes this discharge was addressed by the old plant landfill cap improvements of 1984. Additionally, this milky discharge seeped to the main plant wastewater ditch where it mixed with wastewater before discharge through NPDES outfall 001. The implication in this section appears to be that the milky discharge entered SWMU 35, the old plant landfill drainage ditch. Olin does not believe this was the case. When the old plant landfill was operated as an acid neutralization pond there was a separate drainage ditch parallel to the present day wastewater ditch. This separate drainage ditch joined the wastewater ditch east of the old plant landfill. It is reasonable to investigate this separate drainage ditch as part of the old plant landfill investigation under the RI/FS. Olin proposes that the suggested confirmatory sampling be a part of the soil sampling to be proposed under the Work Plan.
139	Olin understands the contingency suggested in the COMMENTS section regarding sampling of ditches that were once lined with hex. If any investigation around the CPC Plant and Strong Brine Pond indicate a need to sample the ditches, Olin would comment at that time based on the results of such investigation.
142	The description of the Basin on this page is accurate. However, Olin does not believe that the Basin meets the definition of a solid waste management unit. The Basin was the receiving water for plant wastewater discharges, not a unit which managed solid waste. Olin would suggest that the Basin be reclassified as an area of concern to be addressed under the RI/FS.
143	The first sentence on this page cites the ponding of wetlands. EPA/A. T. Kerney should take note that the vegetation within the areas ponded by beaver dams has been killed by the standing water, indicating that these were in fact upland species that could not survive with their roots under water. The last sentence in the second paragraph notes the observation of dead vegetation and barren banks at the Basin outfall and along the ditches leading to and from the Basin. Olin would request that EPA/A. T. Kerney clarify their position relative to this. It is Olin's belief that any barrenness has been created by the erosion of these flowing water channels and is not due to contamination. If EPA/A. T. Kerney holds a contrary view, Olin would be interested in discussing this in detail. As noted previously, the characterization of constituents of wastewater as D waste under RCRA is incorrect and should be deleted from the section entitled WASTE AND/OR HAZARDOUS CONSTITUENTS MANAGED.
147	The period of operation should be changed to 1990 to 1991. The use of the word "Present" implies that these spills are ongoing. Under the section entitled WASTE AND/OR HAZARDOUS CONSTITUENTS MANAGED, A. T. Kerney characterizes caustic as D002. That is incorrect. The caustic was product caustic. When spilled into soil, the soil itself must be characterized to determine if it contains hazardous waste. The sentence should be revised to read: These spill sites managed soils which contained spilled caustic soda, which according to facility representatives does not contain any metals or organics.

RFA Page	Olin's Comment
156	"Cavity" in the third sentence of the second paragraph under PHYSICAL DESCRIPTION AND CONDITION should be changed to "brine." Also, the depth to the cap rock should be corrected to 300 to 430 feet below ground surface.
158	Brine Well #2 was plugged in December 1985. The plugging and subsequent pressure monitoring were conducted under the UIC permit.
159	As noted above, Olin considers the brine within the cavities an asset, not a waste. An estimate of cavity size can be made, but we do not understand the purpose. Storage in a salt dome is unquestionably secure. The brine cavities maintain 400 psi pressures; the compressed air storage cavity maintains pressures in the thousands of psi. Pure salt is virtually impermeable. Therefore, Olin disagrees with the need for the suggested sampling and does not understand what EPA would propose to sample and what would be gained by such sampling.
162	Olin can provide the documentation suggested in the COMMENTS section to demonstrate that the remediation was adequate.
165	The references to the "sodium chlorate" plant should be changed to: sodium hypochlorite.
166	The comments above (referencing page 74 of the RFA report) regarding SWMU 4, the east and west Lime Ponds, also apply to the original lime slurry pit as far as the need to conduct sampling beneath the unit is concerned.
172	The date in the third sentence of the second paragraph should be changed from the "1950's" to 1977, when the evaporator was built. The same change should be made in the last paragraph on page 172.
180	For Area of Concern C, the YEARS IN OPERATION really have no meaning because there is no evidence that the runoff to Bilbo Creek was or is contaminated. Bilbo Creek is approximately 0.8 miles from the nearest point of developed Olin property and the likelihood of runoff being contaminated, as well as the likelihood of any contamination reaching Bilbo Creek, is virtually zero. For these reasons, Olin believes that sampling in Bilbo Creek will prove to be unnecessary based on the contingency stated under the COMMENTS on this page.
183	It appears there is a typographical error under RECOMMENDATIONS. The X in parentheses after Confirmatory Sampling is inconsistent with the format used elsewhere, with the asterisk in the paragraph after COMMENTS, and with the notation in Table I-1 under FURTHER ASSESSMENT.

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December 2, 1991